

List of Plants

C CHLOROGENIC-ACID

Chemid

CHLOROGENICACID

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Plant Part	Low PPM	High PPM	StdDev	*Reference
<i>Acacia nilotica</i>	Plant	--	--		*
<i>Achillea millefolium</i>	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
<i>Aconitum napellus</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Adonis vernalis</i>	Plant	--	--		*
<i>Agrimonia eupatoria</i>	Leaf	--	--		Wealth of India.
<i>Allium sativum</i> var. <i>sativum</i>	Plant	--	--		Stitt, Paul. Why George should eat broccoli.
<i>Allium ampeloprasum</i>	Plant	--	--		*
<i>Althaea officinalis</i>	Root	--	--		*
<i>Althaea officinalis</i>	Flower	--	--		*
<i>Althaea officinalis</i>	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
<i>Anethum graveolens</i>	Fruit	--	--		*
<i>Anethum graveolens</i>	Seed	--	--		*
<i>Angelica archangelica</i>	Plant	--	--		Pakistan Encyclopedia Plantae Medica. 1986.
<i>Apium graveolens</i>	Root	--	--		*
<i>Apium graveolens</i>	Seed	--	--		Wealth of India.
<i>Apium graveolens</i>	Leaf	--	--		*
<i>Arachis hypogaea</i>	Seed	--	12.0	-0.62	*
<i>Arctium lappa</i>	Root	--	--		*
<i>Arnica montana</i>	Flower	--	--		*
<i>Artemisia absinthium</i>	Plant	--	--		*
<i>Artemisia abrotanum</i>	Plant	--	--		*
<i>Artemisia dracunculus</i>	Shoot	--	--		*
<i>Astragalus membranaceus</i>	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Ballota nigra</i>	Plant	--	--		*
<i>Berberis vulgaris</i>	Fruit	--	--		Jim Duke's personal files.
<i>Beta vulgaris</i>	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Boehmeria nivea</i>	Leaf	--	--		*
<i>Brassica oleracea</i> var.	Leaf	--	--		*

<i>Brassica oleracea</i> var. <i>botrytis</i> L.	Leaf	--	--		*
<i>Brassica oleracea</i> var. <i>italica</i>	Leaf	--	--		Stitt, Paul. Why George should eat broccoli.
<i>Brassica nigra</i>	Seed	--	--		Jim Duke's personal files.
<i>Brassica oleracea</i> var. <i>capitata</i> L.	Plant	--	--		*
<i>Calendula officinalis</i>	Flower	--	--		*
<i>Camellia sinensis</i>	Leaf	--	--		*
<i>Camellia sinensis</i>	Tissue Culture	--	--		*
<i>Capsicum annuum</i>	Leaf	--	--		*
<i>Capsicum frutescens</i>	Stem	--	--		*
<i>Capsicum annuum</i>	Fruit	--	--		*
<i>Capsicum frutescens</i>	Fruit	--	--		*
<i>Centaurea cyanus</i>	Shoot	--	--		Jim Duke's personal files.
<i>Centaurea cyanus</i>	Flower	--	--		Jim Duke's personal files.
<i>Cichorium intybus</i>	Leaf	--	--		*
<i>Cichorium intybus</i>	Plant	--	--		*
<i>Cichorium intybus</i>	Shoot	--	--		*
<i>Cichorium intybus</i>	Root	--	--		*
<i>Cinchona pubescens</i>	Leaf	--	--		*
<i>Citrullus colocynthis</i>	Fruit	--	--		*
<i>Clematis vitalba</i>	Plant	--	--		*
<i>Coffea arabica</i>	Seed	50000.0	80000.0	2.1	*
<i>Conium maculatum</i>	Plant	--	--		*
<i>Convallaria majalis</i>	Plant	--	--		*
<i>Corchorus olitorius</i>	Leaf	--	--		*
<i>Coriandrum sativum</i>	Plant	305.0	320.0	-0.68	Abstract (See species file)
<i>Coriandrum sativum</i>	Shoot	--	--		*
<i>Crataegus monogyna</i>	Plant	--	--		Schussler, M., Fricke, U., Nikolov, N., and Holzl, J. 1991. Comparison of the Flavonoids Occurring in Crataegus species and Inhibition of 3',5'-Cyclic Adenosine Monophosphate Phosphodiesterase. Plant Medica 57: Suppl Issue 2. p.A-133.
<i>Crataegus laevigata</i>	Shoot	--	--		*
<i>Crataegus pentagyna</i>	Plant	--	--		Schussler, M., Fricke, U., Nikolov, N., and Holzl, J. 1991. Comparison of the Flavonoids Occurring in Crataegus species and Inhibition of 3',5'-Cyclic Adenosine Monophosphate Phosphodiesterase. Plant Medica 57: Suppl Issue 2. p.A-133.
<i>Crataegus rhipidophylla</i>	Shoot	--	--		*
<i>Crataegus rhipidophylla</i>	Fruit	--	--		*
<i>Crataegus</i>	Leaf	--	--		*

<i>Crataegus laevigata</i>	Plant	--	--		*
<i>Crataegus laevigata</i>	Bud	--	--		*
<i>Crataegus laevigata</i>	Fruit	--	--		*
<i>Crataegus rhipidophylla</i>	Bud	--	--		*
<i>Crataegus rhipidophylla</i>	Leaf	--	--		*
<i>Crataegus rhipidophylla</i>	Flower	--	--		*
<i>Crataegus cuneata</i>	Fruit	--	--		*
<i>Crataegus laevigata</i>	Bark	--	--		*
<i>Crataegus laevigata</i>	Flower	--	--		*
<i>Crataegus rhipidophylla</i>	Bark	--	--		*
<i>Crataegus rhipidophylla</i>	Inflorescence	--	--		*
<i>Cucumis sativus</i>	Fruit	--	--		*
<i>Cyamopsis tetragonoloba</i>	Leaf	--	--		Kaushal, G. P., Bhatia, I. S. 1982. A Study of Polyphenols in the Seeds and Leaves of Guar (<i>Cyamopsis tetragonoloba</i> L. Taub). <i>J Sci Food Agr</i> , 33: 461-470.
<i>Cyamopsis tetragonoloba</i>	Seed	--	--		Kaushal, G. P., Bhatia, I. S. 1982. A Study of Polyphenols in the Seeds and Leaves of Guar (<i>Cyamopsis tetragonoloba</i> L. Taub). <i>J Sci Food Agr</i> , 33: 461-470.
<i>Cydonia oblonga</i>	Fruit	--	--		*
<i>Cynara cardunculus</i>	Flower	--	--		Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Cynara cardunculus</i>	Leaf	--	--		*
<i>Cynara cardunculus</i>	Shoot	--	--		Jim Duke's personal files.
<i>Datura stramonium</i>	Plant	--	--		*
<i>Daucus carota</i>	Root	--	--		*
<i>Digitalis purpurea</i>	Leaf	--	--		*
<i>Dipsacus fullonum</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Echinacea pallida</i>	Root	--	--		Jim Duke's personal files.
<i>Echinacea angustifolia</i>	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Echinacea pallida</i>	Leaf	--	--		*
<i>Echinacea pallida</i>	Flower	--	--		Jim Duke's personal files.
<i>Echinacea spp</i>	Shoot	--	--		Economic & Medicinal Plant Research, 5: 253.
<i>Elaeagnus angustifolia</i>	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Eleutherococcus senticosus</i>	Root	1000.0	6045.0	0.49	*
<i>Eleutherococcus senticosus</i>	Stem Bark	--	77.1		*
<i>Eleutherococcus senticosus</i>	Tissue Culture	--	--		*
<i>Equisetum arvense</i>	Shoot	--	--		Jim Duke's personal files.
<i>Erythroxylum coca</i>	Plant	--	--		*
<i>Eucalyptus globulus</i>	Bark	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Eucalyptus globulus</i>	Wood	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)

<i>ulmoides</i>					Verlag, Berlin, 1969-1979.
<i>Fagopyrum esculentum</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Foeniculum vulgare</i>	Leaf	--	--		Jim Duke's personal files.
<i>Fragaria spp</i>	Fruit	--	--		Jim Duke's personal files.
<i>Glechoma hederacea</i>	Plant	--	--		Vademecum Garcia, A.A., et al. 1998. Fitoterapia Vademecum de Prescripcioon. Masson, S. A. Barcelona, Espana. 1148 pp.
<i>Glycine max</i>	Shoot	--	--		*
<i>Harpagophytum procumbens</i>	Root	--	--		*
<i>Harpagophytum procumbens</i>	Tuber	--	--		*
<i>Hedera helix</i>	Plant	--	--		*
<i>Helianthus annuus</i>	Seed	1900.0	28000.0	0.33	*
<i>Hordeum vulgare</i>	Fruit	--	--		*
<i>Hordeum vulgare</i>	Seed	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Houttuynia cordata</i>	Root	--	--		*
<i>Humulus lupulus</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Hydrastis canadensis</i>	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Hydrastis canadensis</i>	Plant	--	--		*
<i>Hyoscyamus niger</i>	Leaf	--	--		*
<i>Hypericum perforatum</i>	Leaf	--	--		*
<i>Hypericum perforatum</i>	Plant	--	--		*
<i>Ilex paraguariensis</i>	Leaf	--	--		*
<i>Ipomoea batatas</i>	Root	--	--		*
<i>Juglans regia</i>	Seed	10.0	28.0	-0.62	*
<i>Juglans regia</i>	Testa	220.0	800.0		*
<i>Juniperus communis</i>	Leaf	--	--		*
<i>Linum usitatissimum</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Linum usitatissimum</i>	Seed	--	--		*
<i>Lonicera japonica</i>	Flower	445.0	60000.0	1.0	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<i>Lycopersicon esculentum</i>	Fruit	--	18.0	-1.09	*
<i>Lycopus virginicus</i>	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
<i>Lycopus europaeus</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Lythrum salicaria</i>	Leaf	--	--		*
<i>Mahonia repens</i>	Leaf	--	--		Grace, S. C., Logan, B. A., Adams III, W. W. 1998. Seasonal Differences in Foliar Content of Chlorogenic Acid, a Phenylpropanoid Antioxidant, in <i>Mahonia repens</i> . <i>Plant Cell Environ</i> , 21(5): 513-521.
<i>Malus domestica</i>	Pt	--	--		*
<i>Malus domestica</i>	Pericarp	8.0	18.0		*
<i>Malus domestica</i>	Seed	--	--		*

domestica					
Malus domestica	Leaf	100.0	1200.0	-1.32	*
Malus domestica	Fruit Juice	--	--		*
Maranta arundinacea	Leaf	--	--		*
Marrubium vulgare	Plant	--	--		*
Matricaria recutita	Plant	--	--		Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
Melissa officinalis	Shoot	--	19000.0		*
Melissa officinalis	Plant	--	--		*
Mentha x piperita	Shoot	--	--		*
Menyanthes trifoliata	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Morus alba	Leaf	--	--		*
Nicotiana tabacum	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Origanum vulgare	Shoot	--	--		*
Origanum vulgare	Plant	--	--		*
Origanum majorana	Shoot	--	--		*
Persea americana	Fruit	--	--		*
Petroselinum crispum	Stem	--	--		*
Peucedanum ostruthium	Root	--	--		*
Phoenix dactylifera	Fruit	--	--		Abstract (See species file)
Physalis peruviana	Leaf	--	--		*
Pimpinella anisum	Seed	--	1000.0	-0.58	*
Pimpinella anisum	Plant	--	--		*
Pinus sylvestris	Leaf	--	--		*
Plantago major	Plant	--	--		*
Pluchea carolinensis	Shoot	--	--		Tramil
Prunus domestica	Fruit	--	--		Jim Duke's personal files.
Prunus persica	Leaf	--	--		*
Prunus cerasus	Fruit	--	--		*
Prunus persica	Flower	--	--		*
Prunus armeniaca	Fruit	--	--		*
Punica granatum	Fruit	--	--		*
Punica granatum	Leaf	--	--		*
Punica granatum	Fruit Juice	--	--		*
Rhododendron ponticum	Plant	--	--		*
Ribes nigrum	Fruit	--	--		*
Ribes uva-crispa	Fruit	--	--		*
Ricinus communis	Plant	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.

damascena	Spore				
Rosmarinus officinalis	Shoot	--	--		*
Rosmarinus officinalis	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Rubus phoenicolasius	Leaf	--	--		Okuda, T., Yoshida, T., Hatano, T., Iwasaki, M., Kubo, M., Orime, T., Yoshizaki, M., Naruhashi, N. 1992. Hydrolysable Tannins as Chemotaxonomic Markers in the Rosaceae. Phytochemistry, 31(9): 3091-3096.
Rubus fruticosus	Fruit	--	--		*
Salvia officinalis	Shoot	--	--		*
Salvia officinalis	Inflorescence	--	--		*
Sambucus simpsonii	Flower	--	--		Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. I'ORSTROM, Paris. 569 pp.
Sambucus nigra	Flower	--	26000.0	-1.0	*
Satureja montana	Shoot	--	--		*
Scopolia carniolica	Leaf	--	--		*
Senna obtusifolia	Seed	--	--		*
Sesamum indicum	Leaf	--	--		Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
Solanum tuberosum	Sprout Seedling	--	--		*
Solanum tuberosum	Root	--	260.0	-1.39	*
Solanum torvum	Plant	--	--		*
Solanum tuberosum	Root Bark	--	--		*
Solanum tuberosum	Leaf	--	2230.0	0.23	*
Solanum melongena	Fruit	--	--		*
Solanum tuberosum	Flower	--	--		*
Solanum tuberosum	Tuber	22.0	3950.0		*
Solidago virgaurea	Flower	--	--		*
Sorbus aucubaria	Fruit	--	--		*
Spinacia oleracea	Shoot	--	--		*
Stachys officinalis	Shoot	--	--		*
Stachys officinalis	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Stachytarpheta jamaicensis	Plant	--	--		*
Stellaria media	Shoot	--	--		*
Strychnos nux-vomica	Seed	--	--		*
Symphytum officinale	Root	--	--		*
Tanacetum vulgare	Plant	--	--		*
Taraxacum officinale	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Teucrium chamaedrys	Plant	--	200.0	-0.73	*
Teucrium scordium	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Theobroma	Seed	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive

<i>Theobroma cacao</i>	Leaf	--	--		*
<i>Thymus vulgaris</i>	Shoot	--	--		*
<i>Thymus vulgaris</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Tilia sp.</i>	Flower	--	--		*
<i>Trifolium pratense</i>	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
<i>Triticum aestivum</i>	Seed	--	5.0	-0.62	*
<i>Tropaeolum majus</i>	Pericarp	--	--		*
<i>Uncaria tomentosa</i>	Bark	--	--		Van Ginkel, A. 1996. Identification of the Alkaloids and Flavonoids from Uncaria tomentosa Bark by TLC in Quality Control. Phytotherapy Research, 10: S18-S19.
<i>Uncaria guianensis</i>	Bark	--	--		Van Ginkel, A. 1996. Identification of the Alkaloids and Flavonoids from Uncaria tomentosa Bark by TLC in Quality Control. Phytotherapy Research, 10: S18-S19.
<i>Urtica dioica</i>	Flower	--	--		*
<i>Urtica dioica</i>	Shoot	--	--		Jim Duke's personal files.
<i>Urtica dioica</i>	Plant	200.0	5000.0	1.41	Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.
<i>Urtica dioica</i>	Leaf	--	--		Jim Duke's personal files.
<i>Vaccinium myrtillus</i>	Leaf	--	2800.0	1.09	*
<i>Vaccinium macrocarpon</i>	Fruit	--	--		*
<i>Vaccinium myrtillus</i>	Fruit Juice	--	--		*
<i>Vaccinium corymbosum</i>	Fruit	--	3000.0	1.51	*
<i>Vaccinium myrtillus</i>	Fruit	--	1900.0	0.55	*
<i>Valeriana officinalis</i>	Root	--	7300.0	0.9	*
<i>Viburnum prunifolium</i>	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Viburnum opulus</i>	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Viburnum opulus</i>	Branches	--	--		*
<i>Vitis vinifera</i>	Root	--	--		*
<i>Vitis vinifera</i>	Leaf	--	--		*
<i>Vitis vinifera</i>	Shoot	--	--		*
<i>Vitis vinifera</i>	Fruit	--	1400.0	0.12	*
<i>Withania somnifera</i>	Leaf	--	--		*
<i>Zea mays</i>	Silk Stigma Style	--	--		*
<i>Zea mays</i>	Leaf	--	--		*
<i>Zingiber officinale</i>	Plant	--	--		Stitt, Paul. Why George should eat broccoli.